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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/959,125	10/28/1997	YOSHIHIKO HIGUCHI	20111-0014	4244

7590 09/22/2006

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WASHINGTON, DC 20006

EXAMINER

ALEXANDER, LYLE

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

08/959,125

Applicant(s)

HIGUCHI ET AL.

Examiner

Lyle A. Alexander

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,3,5 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-3,5 and 14-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 2-3,5 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0162,302 in view of Harasta et al. (USP 4,426,431).

See the appropriate paragraph of the previous Office action.

EP 0162,302 teaches a light reflective particle that has the same diameter as the claimed polymer bead containing embedded light reflective particles. Page 8 line 27 teaches the light reflective particles have a diameter of 0.1-1.2 microns which has been read on the claimed particle diameter range. In the absence of a showing of unexpected results, one having ordinary skill in the art would have expected the taught light reflective particle to have indistinguishable properties from the claimed polymer bead containing embedded light reflective particles because both are within the same size range and have the same light reflective properties. Page 9 lines 6+ teach the claimed relative amounts of polymer beads to the total weight and the claimed weight volume percentage of the light reflective particles.

EP 162,302 is silent o the claimed particle diameters of 3 to 15 microns.

Harasta et al. teach in column 10 lines 57 through column 11 use of acrylic polymers as a bead support where the beads are embedded with titanium dioxide or barium sulfate. The range of bead diameter is from 4 millimicrons to 30 microns. The

selection of the appropriate bead diameter is related to the desired settling characteristics.

The court decided In re Boesch (205 USPQ 215) that optimization of a result effective variable is ordinarily within the skill of the art. A result effective variable is one that has well known and predictable results. The diameter of the beads are a result effective variable dependent upon the desired settling characteristics.

It would have been within the skill of the art to modify EP 162,302 in view of Harasta et al. and use acrylic polymer beads having a diameter of 3 to 15 microns as optimization of a result effective variable related to the settling characteristics of the beads.

### ***Response to Arguments***

Applicant's arguments filed 6/9/06 have been fully considered but they are not persuasive.

Applicants' certified translations are appreciated and have perfected the filing date to 10/31/96.

Applicants' traverse the rejection over EP 162,302 on the basis this reference fails to teach particle having a size range of 3-15 microns embedded with light reflective particles. The Office has applied Harasta et al. above to teach such particles in the 4 millimicron to 30 micron range are known. Harasta et al. also state the selection of the bead diameter is a dependent upon the desired settling characteristics. The Office has taken the new position above the selection of bead diameter is a result effective variable

and the selection of the claimed 3-15 micron range would have been within the skill of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lyle A. Alexander whose telephone number is 571-272-1254. The examiner can normally be reached on Monday, Wednesday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lyle A Alexander  
Primary Examiner  
Art Unit 1743

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